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OM protein - protein search, using sw model

Run on: June 21, 2002, 08:23:31 ; Search time 93.48 Seconds
(without alignments)
103.374 Million cell updates/sec

Title: US-09-351-778a-10

Sequence: 1 MCGSTIAPTDTYRNTTATGL.....RPIYRPIGLKPCSLILQYD 87

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 747574 seqs, 111073796 residues

Word size : 0

Total number of hits satisfying chosen parameters: 747574

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: listing first 45 summaries

Database :

A.GeneSeq_032802.*
1: /SIDSL/gcgdata/hold-geneseq/genesqp-emb1/AA1980.DAT.*
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20: /SIDSL/gcgdata/hold-geneseq/genesqp-emb1/AA1999.DAT.*
21: /SIDSL/gcgdata/hold-geneseq/genesqp-emb1/AA2000.DAT.*
22: /SIDSL/gcgdata/hold-geneseq/genesqp-emb1/AA2001.DAT.*

Prod. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	87	100.0	87	22	AA61870
2	75	86.2	78	22	AA61869
3	75	86.2	101	19	AAW78902
4	75	86.2	101	19	AAW75787
5	75	86.2	101	20	AAW61197
6	75	86.2	101	21	AAW84407
7	75	86.2	101	22	AAW47591
8	75	86.2	101	22	AAW50206
9	75	86.2	101	22	AA61866
10	75	86.2	101	22	AA61866
11	70	80.5	77	22	AA61871

12	52	59.8	101	19	AAW59925	Adenovirus death p
13	40	46.0	40	22	AA61873	Ad2 ADP putative l
14	35	40.2	95	22	AA61868	Ad6 encoded adenov
15	30	34.5	84	22	AA61872	Ad2 ADP mutant d17
16	24	27.6	93	22	AA61867	Ad5 encoded adenov
17	19	21.8	19	22	AA61874	Ad2 ADP transmembr
18	18	20.7	94	22	AA61865	Ad1 encoded adenov
19	16	18.4	42	22	AA61875	Ad2 ADP cytosolic
20	8	9.2	8	22	AA61875	Ad2 ADP cytosolic
21	7	8.0	157	21	AA61874	Zea mays protein f
22	7	8.0	197	20	AA61874	C. pneumoniae cell
23	7	8.0	197	22	AA043319	Propionibacterium
24	7	8.0	242	21	AA064903	Arabidopsis thalia
25	7	8.0	242	21	AA059416	Arabidopsis thalia
26	7	8.0	273	22	AA058446	Novel human diageno
27	7	8.0	316	21	AA04902	Arabidopsis thalia
28	7	8.0	316	21	AA059415	Arabidopsis thalia
29	7	8.0	404	22	AA665340	Drosophila melanog
30	7	8.0	473	22	AB626845	Novel human diageno
31	7	8.0	482	21	AA196786	Soybean sucrose no
32	7	8.0	604	22	AA667946	Drosophila melanog
33	7	8.0	635	22	AB666261	Drosophila melanog
34	6	6.9	15	22	AA078731	Human copper/zinc
35	6	6.9	43	22	AB644015	Peptide #11521 enc
36	6	6.9	43	22	AA65030	Human brain expres
37	6	6.9	43	22	AAW77745	Human bone marrow
38	6	6.9	43	22	AAW21556	Peptide #8090 enco
39	6	6.9	43	22	AAW37959	Peptide #11996 enc
40	6	6.9	50	22	AA678805	Deadpan mutant bHL
41	6	6.9	50	22	AA678832	Deadpan mutant bHL
42	6	6.9	51	22	AA678806	Deadpan mutant bHL
43	6	6.9	51	22	AA678831	Deadpan mutant bHL
44	6	6.9	52	22	AA048951	Propionibacterium
45	6	6.9	52	22	AA678807	Deadpan mutant bHL

ALIGNMENTS

RESULT	1	ALIGNMENTS
AA61870	standard; Protein; 87 AA.	
XX	AA61870;	
XX	08-MAY-2001 (first entry)	
XX	Ad2 ADP mutant d1715.	
XX	Adenovirus death protein; ADP; neoplastic; cell death; cancer therapy;	
XX	anti-cancer; gene therapy; cytostatic; Ad2; mutant.	
OS	Masteradenovirus.	
XX	WO200104282-A2.	
XX	18-JAN-2001.	
XX	12-JUL-2000; 2000WO-US18971.	
XX	12-JUL-1999; 99US-0351778.	
XX	(UYSL-) UNTV SAINT LOUIS.	
XX	Wold WSM, Toch K, Doronin K, Tollefson AE.	
XX	WPI; 2001-103079/11.	
PT	Recombinant vector which is replication-competent in a neoplastic cell	
PT	and overexpresses an adenovirus death protein, useful in cancer therapy	
PT	when used together with replication-defective adenovirus which	
PT	expresses an anti-cancer gene -	
XX		

XX Sequence 101 AA;

Query Match 86.2%; Score 75; DB 19; Length 101;
Best Local Similarity 100.0%; Pred. No. 1.7e-68;
Matches 75; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTGSIAPPTDYRMTATGTLTALNLPQVHAFFVNDWASLDMWFSIALMFVCLIMWLC 60
DB 1 mgsctapctdyrmtatgltalsalnlpvhaafvndwasldmwfsialmfvcilimwlc 60
QY 61 CLKRRRARPPYRPI 75
DB 61 clkrrrarpplyrpi 75

RESULT 4

AAW5787 ID AAW5787 standard; Protein; 101 AA.

AAW5787;

21-DEC-1998 (first entry)

Adenovirus death protein.

Probasin transcriptional response element; PB-TRE; rat;
androgen receptor; adenovirus; vector; prostate cancer;
gene therapy; adenovirus death protein; ADP.

Mastadenovirus.

WO9839466-A2.

11-SEP-1998.

03-MAR-1998; 98WO-US04132.

02-MAR-1998; 98US-0033333.

03-MAR-1997; 97US-0039762.

(CALY-) CALYDON INC.

Henderson DR, Lamparski HG, Schuur ER, Yu D;

WPI; 1998-506369/43.

N-PSDB; AAV57354.

New adenovirus vectors, particularly for cancer therapy - comprising an adenovirus gene under transcriptional control of a probasin transcriptional regulatory element

Disclosure: Page 96; 117pp; English.

This is the amino acid sequence of adenovirus death protein (ADP).
Claimed replication-competent adenovirus (Ad) vectors comprise an Ad gene under transcriptional control of a probasin transcriptional response element (PB-TRE, see AAV57334). The vector can be used for detecting cells that allow a PB-TRE to function, especially cells expressing an androgen receptor, such as prostate cells. They can be used to confer selective toxicity to such cells. In particular, the vectors can be used for treating cancers such as prostate cancer. Ad vectors containing the ADP gene (see AAV57334) may render the vector more potent, making possible more effective treatment and/or a lower dosage requirement. An Ad vector has been constructed that contains the ADP gene under control of PB-TRE. Cytotoxicity was demonstrated toward LNCaP (prostate carcinoma) cells.

Sequence 101 AA;

Query Match 86.2%; Score 75; DB 19; Length 101;

Best Local Similarity 100.0%; Pred. No. 1.7e-68;
Matches 75; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTGSIAPPTDYRMTATGTLTALNLPQVHAFFVNDWASLDMWFSIALMFVCLIMWLC 60
DB 1 mgsctapctdyrmtatgltalsalnlpvhaafvndwasldmwfsialmfvcilimwlc 60
QY 61 CLKRRRARPPYRPI 75
DB 61 clkrrrarpplyrpi 75

RESULT 5

AAW61197 ID AAW61197 standard; Protein; 101 AA.

AAW61197;

07-DEC-1998 (first entry)

Adenovirus death protein.

Adenovirus death protein; ADP; vector; hepatoma; cancer;
alpha-fetoprotein transcription regulatory element; AFP-TRE;
hepatocellular carcinoma; hepatoma; gene therapy; human.

Mastadenovirus type 2.

WO9839465-A2.

11-SEP-1998.

03-MAR-1998; 98WO-US04084.

02-MAR-1998; 98US-0039597.

03-MAR-1997; 97US-0039597.

(CALY-) CALYDON INC.

Henderson DR, Lamparski HG, Little AS, Schuur ER;

WPI; 1998-495861/42.

N-PSDB; AAV47675.

New adenovirus vector, for treating cancers - comprising an adenovirus gene under the transcriptional control of an alpha fetoprotein transcription regulatory element

Claim 29; Page 74; 102pp; English.

This is the amino acid of the adenovirus death protein (ADP) of adenovirus type 2. The ADP coding sequence (see AAV47675), with or without the 5' leader, can be introduced into an adenoviral genome, e.g. in the E3 or E4 region. Inclusion of such a coding sequence in an adenoviral vector significantly enhances the extent of cytotoxicity, cell killing and virus production. The invention provides replication-competent adenovirus vectors which preferentially replicate in cells that express alpha-fetoprotein (AFP), particularly hepatoma cells. The vectors comprise at least one adenovirus gene, preferably a gene that contributes to cytotoxicity, under the transcriptional control of an AFP transcription regulatory element (see AAV47654-55). The vectors are useful for conferring selective cytotoxicity to AFP-expressing cells, especially cancer cells.

Sequence 101 AA;

Query Match 86.2%; Score 75; DB 19; Length 101;

Best Local Similarity 100.0%; Pred. No. 1.7e-68;
Matches 75; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MTGSIAPPTDYRMTATGTLTALNLPQVHAFFVNDWASLDMWFSIALMFVCLIMWLC 60

DB 1 mtgscitpctdyntcatglttsalnlpqhafvndwasldmwwfsialmfvcclimwllc 60
 QY 61 CLKRRRARPPPIYRPI 75
 DB 61 CLKRRRARPPPIYRPI 75

RESULT 6

AAW98003

ID AAW98003 standard; Protein; 101 AA.

XX AC AAW98003;

DT 21-JUN-1999 (first entry)

XX DE Adenovirus death protein.

XX KM Enhancer; glandular kallikrein-1; hGK-1; hKLK2; human;
 XX KM prostate cancer; therapy; adenovirus death protein.

XX OS Mastadenovirus 2.

XX PN WO9906576-A1.

XX PD 11-FEB-1999.

XX PF 04-AUG-1998; 98MO-US16312.

XX PR 03-AUG-1998; 98US-0127834.

XX PR 04-AUG-1997; 97US-0054523.

XX PR 02-MAR-1998; 98US-0076545.

XX PA (CALY-) CALYDON INC.

XX PI Henderson DR, Schuur ER, Yu D;

XX DR WPI: 1999-153804/13.

XX DR N-PSDB; AAX24756.

XX PT New nucleic acid containing the human glandular kallikrein enhancer
 XX PT - providing increased expression of heterologous sequences in
 XX PT prostatic cells, and related adenoviral vectors for treating
 XX PT prostatic cancer

XX PS Disclosure: Page 165-166; 179pp; English.

XX CC This protein comprises the adenovirus death protein (ADP) of
 CC adenovirus serotype 2. The invention provides novel adenovirus
 CC vectors in which at least one adenovirus gene, preferably one that
 CC contributes to cytotoxicity, is placed under transcriptional
 CC control of a human glandular kallikrein hKLK2 enhancer
 CC transcriptional regulatory element (hKLK2-TRE, see AAX24755). Such
 CC vectors are useful for treatment of cancers such as prostate
 CC cancer. The ADP gene may render the adenoviral vector more potent,
 CC making possible more effective treatment and/or lower dosage
 CC requirement.

XX SQ Sequence 101 AA;

Query Match 86.2%; Score 75; DB 20; Length 101;

Best Local Similarity 100.0%; Pired. No. 1.7e-68; Mismatches 0; Indels 0; Gaps 0;

DB 1 mtgscitpctdyntcatglttsalnlpqhafvndwasldmwwfsialmfvcclimwllc 60
 QY 1 MTGSIAPTPTDYRNTTATGTSALNLPQVHAFFVNDNASLDMWFSTALMFVCLIMWLLC 60
 DB 1 mtgscitpctdyntcatglttsalnlpqhafvndwasldmwwfsialmfvcclimwllc 60
 QY 61 CLKRRRARPPPIYRPI 75
 DB 61 CLKRRRARPPPIYRPI 75

RESULT 7

AAW84407

ID AAW84407 standard; Protein; 101 AA.

XX AC AAW84407;

DT 25-JUL-2000 (first entry)

XX DE Amino acid sequence of an adenoviral death protein.

XX KM adenoviral vector; adenovirus gene; transcriptional control;
 XX KM transcriptional regulatory element; TRE; adenoviral propagation;
 XX KM death protein; tumour.

XX OS Mastadenovirus.

XX PN WO20015820-A1.

XX PD 23-MAR-2000.

XX PF 10-SEP-1999; 99MO-US20718.

XX PR 10-SEP-1998; 98US-0099791.

XX PR 09-SEP-1999; 99US-0099791.

XX PA (CALY-) CALYDON INC.

XX PI Yu DC, Henderson DR;

XX DR WPI: 2000-271456/23.

XX DR N-PSDB; AAZ99937.

XX PT Adenovirus vectors comprising cell-status specific response elements
 XX PT useful in gene therapy protocols for the treatment of cancers -

XX PS Disclosure: Fig 9; 79pp; English.

XX CC The present sequence represents an adenoviral death protein, which is
 CC used to construct the vectors of the invention. The specification
 CC describes adenoviral vectors which comprise an adenovirus gene
 CC under transcriptional control of a cell status specific transcriptional
 CC regulatory element (TRE). The TRE is preferably one that is
 CC essential for adenoviral propagation. The adenovirus vectors
 CC may be used for the treatment of a range of tumours such as lung,
 CC stomach, breast, colon and rectum, and uterine and cervix cancers.

XX SQ Sequence 101 AA;

Query Match 86.2%; Score 75; DB 21; Length 101;

Best Local Similarity 100.0%; Pired. No. 1.7e-68; Mismatches 0; Indels 0; Gaps 0;

DB 1 mtgscitpctdyntcatglttsalnlpqhafvndwasldmwwfsialmfvcclimwllc 60
 QY 1 MTGSIAPTPTDYRNTTATGTSALNLPQVHAFFVNDNASLDMWFSTALMFVCLIMWLLC 60
 DB 1 mtgscitpctdyntcatglttsalnlpqhafvndwasldmwwfsialmfvcclimwllc 60
 QY 61 CLKRRRARPPPIYRPI 75
 DB 61 CLKRRRARPPPIYRPI 75
 QY 07-JAN-2002 (first entry)
 DE ADP amino acid sequence.

KM	Adenovirus; ADP; replication-competent; adenoviral vector; TRE;
KN	transcriptional regulatory element; mutation; deletion; IRES;
KW	promoter; internal ribosome entry site; cytotoxic; cancer; bladder.
XX	
OS	Adenovirus.
PX	
PN	MO200173093-AA2.
PD	
PF	04-OCT-2001.
PR	
XX	
PA	21-MAR-2001; 2001WO-US09036.
PI	
DR	24-MAR-2000; 2000US-192156P.
XX	
XX	(CALY-) CALYDON INC.
XX	
XX	Yu D, Li Y, Henderson DR;
PT	WPI; 2001-639234/73.
PT	N-PDB; AAH43535.
PT	
XX	Replication-competent adenoviral vector, useful e.g. for killing cancer
XX	cells, contains two genes linked by internal ribosome entry site and
XX	controlled by target-specific regulator -
PS	
XX	Disclosure: Fig 9; 148bp; English.
CC	
CC	This sequence represents adenoviral ADP. The ADP coding sequence may
CC	be used in the replication-competent adenoviral vector (A) of the
CC	invention which contains two genes (G1, G2) that are co-transcribed
CC	as a single mRNA and under control of a heterologous, target cell-
CC	specific transcriptional regulatory element (TRE). G2 has a mutation
CC	in, or deletion of, its endogenous promoter and is controlled from
CC	an internal ribosome entry site (IRES). The ADP coding sequence may
CC	be used as G1 or G2. (A) has greater specificity for a target cell
CC	than a similar vector in which TRE is operably linked to a gene and
CC	which lacks an IRES. (A) are used to modify the genotype of target
CC	cells, optionally in vitro with subsequent return of altered cells to
CC	the host and where G2 is a cytotoxic gene, to confer selective
CC	cytotoxicity to target cells, especially for killing cancer cells.
CC	ADP displays a cytotoxic, particularly cell lysis, function. Also (A)
CC	are used for diagnosis and monitoring, e.g. detection of bladder cancer
CC	cells. The target cell-specific TRE ensures that (A) has better
CC	targeting specificity, with minimal replication in non-target cells, so
CC	a runaway infection is prevented but production of adenoviral proteins
CC	in target cells activates and/or stimulates the immune response against
CC	target cells producing such proteins. The use of an IRES (rather than
CC	two identical control elements) eliminates the risk of homologous
CC	recombination and may provide enough extra space for an additional
CC	(therapeutic) gene.
CC	
SQ	Sequence 101 AA:
XX	
XX	
Query Match	86.2%; Score 75; DB 22; Length 101;
Best Local Similarity	100.0%; Pred. No. 1,7e+68;
Matches 75; Conservative	0; Mismatches 0; Indels 0; Gaps 0;
OY	1 MGCGTAAPTDTRNTATGCTSLANLPOVHAFFVDMAASLDMMFSTALAEVCLITMLIC 60
DJ	
DJ	1 MGGTCTCPTDGTTCATGTTSLINLPQHAFIVDWASLDMMFSTALAEVCLITMLIC 60
OY	61 CLKRRRARPPITYRPI 75
DJ	
DJ	61 CLKRRRARPPITYRPI 75
RESULT 9	
ID AAM50206	standard; Protein; 101 AA.
ID AAM50206	
NC	
IX	

DT	07-JAN-2002	(first entry)
XX	Adenovirus death protein.	
DE	Adenovirus death protein.	
XX	Adenovirus death protein; uroplakin II; vector;	
XX	transcriptional regulatory element; TRE; urothelial cell;	
KW	bladder cancer; human; gene therapy.	
XX		
XX	Mastadenovirus 2.	
OS		
XX	MO200i72994-A2.	
PN		
XX	04-OCT-2001.	
XX		
PD		
XX	21-MAR-2001; 2001MO-US09224.	
PF		
XX	24-MAR-2000; 2000US-191861P.	
PR		
XX	(CALY-) CALYDON INC.	
PA		
XX		
PI	Yu D, Zhang H, Henderson DR;	
DR	WPI: 2001-639229/73.	
DR	N-PSDB; AAI70186.	
XX		
XX	Example 6; Fig 12; 147pp; English.	
PS		
XX		
CC	The present sequence is that of the adenovirus death protein (ADP).	
CC	The ADP gene coding region (see AAI70186) was obtained by PCR	
CC	amplification and used in the construction of adenoviral vectors in	
CC	which ADP expression was under the control of a urothelial	
CC	cell-specific transcriptional regulatory element (TRE) derived from	
CC	the human uroplakin II gene 5' flanking region (see AAI70144). This	
CC	is an example of adenoviral vectors of the invention. Such vectors	
CC	comprise a gene, preferably an adenovirus gene, under transcriptional	
CC	control of a urothelial cell-specific TRE. They display urothelial	
CC	cell-specific cytotoxicity, and are used for the specific, targeted	
CC	gene therapy of bladder cancer.	
XX		
XX	Sequence 101 AA;	
SO		
XX		
XX	Query Match	86.2%; Score 75; DB 22; Length 101;
XX	Best Local Similarity	100.0%; Pred. No. 1.7e-68;
XX	Matches 75; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	
OY	1 MGTGTAATPTGYRMTTATGCTGALNIPGVNAFVNDNASLDMWTFSTALMFVCLITMLIC 60	
DB	1 mgtstlaptcdyrmntatcgtltsalnlpqyhafvndasldmwwfstalmfvcclitmlilc 60	
OY	61 CLKRRRARPPYIRPI 75	
DB	61 CLKRRRARPPYIRPI 75	
XX		
XX	RESULT 10	
XX	AAB61866	
XX	ID AAB61866 standard; Protein; 101 AA.	
XX	AC AAB61866;	
XX	DT 08-MAY-2001 (first entry)	
XX	DE Ad2 encoded adenovirus death protein (ADP).	
XX	ADenovirus death protein; ADP; neoplastic; cell death; cancer therapy;	
XX	anti-cancer; gene therapy; cytostatic; Ad2.	
XX		

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OS Masadenovirus.
XX
FH Key Location/Qualifiers
FT Peptide 1..26
FT /note= "fragment specifically claimed for"
FT Domain 1..40
FT /note= "putative luminal domain (AAB61873)"
FT Domain 41..59
FT /note= "transmembrane domain (AAB61874);
FT /note= fragment specifically claimed for"
FT Domain 63..70
FT /note= "cytosolic basic proline domain (AAB61875)
FT /note= fragment specifically claimed for"
FT Domain 60..101
FT /note= "cytoplasmic-nucleoplasmic domain"
XX
FH W0200104282-A2.
XX
PD 18-JAN-2001.
XX
PF 12-JUL-2000; 2000MO-US18971.
XX
PR 12-JUL-1999; 99US-0351778.
XX
PA (UYSL-) UNIV SAINT LOUIS.
XX
PI Wold WSM, Toch K., Doronin K., Tollefson AE;
XX
DR WPI: 2001-103079/11.
XX
PT Recombinant vector which is replication-competent in a neoplastic cell
PT and overexpresses an adenovirus death protein, useful in cancer therapy
PT when used together with replication-defective adenovirus which
PT expresses an anti-cancer gene -
XX
PS Claim 5; Page 156; 196pp; English.
XX
CC The invention relates to a recombinant vector (V1) which is replication-
CC competent in a neoplastic cell and which overexpresses an adenovirus
CC death protein (ADP). The vector can be used in a method for promoting
CC death of a neoplastic cell that comprises contacting the neoplastic cell
CC with at least one V1; and a composition comprising V1 and a second
CC recombinant virus which is: (a) replication defective and which
CC expresses an anti-cancer gene product, where V1 complements replication
CC of the second recombinant virus; or (b) replication-competent in a
CC neoplastic cell, V1, together with one or more replication-defective
CC adenovirus which expresses an anti-cancer gene product, are useful in
CC cancer therapy. Overexpression of ADP by V1 results in faster lysis of
CC cells and spread of the virus throughout a cell monolayer than viruses
CC expressing wild-type levels of ADP. The present sequence represents the
CC amino acid sequence of an ADP encoded by Ad2.
XX
SQ Sequence 101 AA:
XX
Query Match 86.28; Score 75; DB 22; Length 101;
Best Local Similarity 100.0%; Pred. No. 1.7e-68;
Matches 75; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
OY 1 MTGSIAPPTDVRMTATGTSALNLPVHAFFVNDASIDMMWFSIALMFVCLIMWLC 60
DB 1 mtgstlapttdyrntatgtsalnlpvhafvndasldmmwfsialmfvcilimwllc 60
XX
OY 61 CLKRRRARPPIRPI 75
DB 61 clkrrrarpplirpi 75
XX
RESULT 11
AAB61871
ID AAB61871 standard; Protein: 77 AA.
XX
AC AAB61871:

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XX
DF 08-MAY-2001 (first entry)
XX
DE Ad2 ADP mutant d1714.
XX
KW Adenovirus death protein; ADP; neoplastic; cell death; cancer therapy;
XX anti-cancer; gene therapy; cytosolic; Ad2; mutant.
XX
OS Masadenovirus.
XX
PD W0200104282-A2.
XX
PF 18-JAN-2001.
XX
PF 12-JUL-2000; 2000MO-US18971.
XX
PR 12-JUL-1999; 99US-0351778.
XX
PA (UYSL-) UNIV SAINT LOUIS.
XX
PI Wold WSM, Toch K., Doronin K., Tollefson AE;
XX
DR WPI: 2001-103079/11.
XX
PT Recombinant vector which is replication-competent in a neoplastic cell
PT and overexpresses an adenovirus death protein, useful in cancer therapy
PT when used together with replication-defective adenovirus which
PT expresses an anti-cancer gene -
XX
PS Example 9; Fig 20; 196pp; English.
XX
CC The invention relates to a recombinant vector (V1) which is replication-
CC competent in a neoplastic cell and which overexpresses an adenovirus
CC death protein (ADP). The vector can be used in a method for promoting
CC death of a neoplastic cell that comprises contacting the neoplastic cell
CC with at least one V1; and a composition comprising V1 and a second
CC recombinant virus which is: (a) replication defective and which
CC expresses an anti-cancer gene product, where V1 complements replication
CC of the second recombinant virus; or (b) replication-competent in a
CC neoplastic cell, V1, together with one or more replication-defective
CC adenovirus which expresses an anti-cancer gene product, are useful in
CC cancer therapy. Overexpression of ADP by V1 results in faster lysis of
CC cells and spread of the virus throughout a cell monolayer than viruses
CC expressing wild-type levels of ADP. The present sequence represents the
CC amino acid sequence of an Ad2 ADP mutant.
XX
SQ Sequence 77 AA:
XX
Query Match 80.58; Score 70; DB 22; Length 77;
Best Local Similarity 100.0%; Pred. No. 1.6e-63;
Matches 70; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX
OY 1 MTGSIAPPTDVRMTATGTSALNLPVHAFFVNDASIDMMWFSIALMFVCLIMWLC 60
DB 1 mtgstlapttdyrntatgtsalnlpvhafvndasldmmwfsialmfvcilimwllc 60
XX
OY 61 CLKRRRARPPIRPI 70
DB 61 clkrrrarpplirpi 70
XX
RESULT 12
AAM59925
ID AAM59925 standard; Protein: 101 AA.
XX
AC AAM59925;
XX
DT 11-JAN-1999 (first entry)
XX
DE Adenovirus death protein.
XX
DE Adenovirus death protein; ADP; transcription regulatory element;
XX
KM

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KM vector: breast cancer; prostate cancer; liver cancer; colon cancer;
 KW gene therapy.
 XX Mastadenovirus.
 OS
 XX WO9839464-A2.
 PN
 XX
 PD 11-SEP-1998.
 XX
 PF 03-MAR-1998; 98WO-US04080.
 XX
 PR 02-MAR-1998; 98US-0054523.
 XX
 PR 03-MAR-1997; 97US-0039762.
 PR 03-MAR-1997; 97US-0039763.
 PR 04-AUG-1997; 97US-0054523.
 XX
 PA (CALY-) CALYDON INC.
 FI
 PI Henderson DR, Lamparski HG, Yu D;
 DR WPI; 1998-495860/42.
 DR N-PSDB; AAV53632.
 XX
 PT New adenovirus vectors, used for treating tumours - comprising first
 PT and second adenovirus genes under control of different heterologous
 PT transcriptional regulatory elements
 PS
 PS Disclosure: Page 94; 130pp; English.
 XX
 CC This is the amino acid sequence of adenovirus death protein (ADP).
 CC The invention provides replication-competent adenovirus vectors
 CC specific for target cells and methods of using such vectors. The
 CC vectors contain heterologous transcription regulatory elements
 CC (TREs) and may incorporate a gene, such as the ADP gene (see
 CC AAV53632), which can contribute to cytotoxicity in the target cell.
 CC Adenoviral replication can be restricted to target cells in which
 CC the heterologous TREs are functional and thus the vectors can
 CC provide selective cytotoxicity to the target cells (e.g. prostate,
 CC liver, breast or colon), particularly neoplastic cells.
 CC
 XX Sequence 101 AA:

Query Match 59.8%; Score 52; DB 19; Length 101;
 Best Local Similarity 100.0%; Pred. NO. 3.9e-45;
 Matches 52; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 24 LNLPOVHAFFVNDASLDMMWFSAIMFVCLIMWLICCLRRRARPPYRPI 75
 ||||||||||||||||||||||||||||||||||||||||||||||||||||
 DB 24 LNLPOVHAFFVNDASLDMMWFSAIMFVCLIMWLICCLRRRARPPYRPI 75

RESULT 13
 AAB61873
 ID AAB61873 standard; Protein: 40 AA.
 AC
 XX AAB61873;
 AC
 XX 08-MAY-2001 (first entry)
 DT
 XX Ad2 ADP putative luminal domain.
 DE
 XX Adenovirus death protein; ADP; neoplastic; cell death; cancer therapy;
 KW anti-cancer; gene therapy; cytostatic; Ad2.
 KW
 XX Mastadenovirus.
 OS
 XX WO200104282-A2.
 PN
 XX 18-JAN-2001.
 PD
 XX 12-JUL-2000; 2000WO-US18971.
 PF
 XX

PR 12-JUL-1999; 99US-0351778.
 XX
 PA (USL-) UNIV SAINT LOUIS.
 XX
 PI Wold MSM, Toth K, Doronin K, Tollefson AE;
 DR WPI; 2001-103079/11.
 XX
 PT Recombinant vector which is replication-competent in a neoplastic cell
 PT and overexpresses an adenovirus death protein, useful in cancer therapy
 PT when used together with replication-defective adenovirus which
 PT expresses an anti-cancer gene -
 PS
 PS Example 9; Fig 20; 196pp; English.
 XX
 CC The invention relates to a recombinant vector (V1) which is replication-
 CC competent in a neoplastic cell and which overexpresses an adenovirus
 CC death protein (ADP). The vector can be used in a method for promoting
 CC death of a neoplastic cell that comprises contacting the neoplastic cell
 CC with at least one V1; and a composition comprising V1 and a second
 CC recombinant virus which is: (a) replication competent and which
 CC expresses an anti-cancer gene product, where V1 complements replication
 CC of the second recombinant virus; or (b) replication-competent in a
 CC neoplastic cell, V1, together with one or more replication-defective
 CC adenovirus which expresses an anti-cancer gene product, are useful in
 CC cancer therapy. Overexpression of ADP by V1 results in faster lysis of
 CC cells and spread of the virus throughout a cell monolayer than viruses
 CC expressing wild-type levels of ADP. The present sequence represents the
 CC amino acid sequence of an Ad2 ADP putative luminal domain.
 CC
 XX Sequence 40 AA:

Query Match 46.0%; Score 40; DB 22; Length 40;
 Best Local Similarity 100.0%; Pred. NO. 2.8e-33;
 Matches 40; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 MTGSTIAPPTDRTMTATGTSALNLPQVHAFFVNDASLD 40
 ||||||||||||||||||||||||||||||||||||||||||||||||
 DB 1 mtgstiapttdyrtmtatgtsalnlpqvhaffvndawsld 40

RESULT 14
 AAB61868
 ID AAB61868 standard; Protein: 95 AA.
 AC
 XX AAB61868;
 AC
 XX 08-MAY-2001 (first entry)
 DT
 XX Ad6 encoded adenovirus death protein (ADP).
 DE
 XX Adenovirus death protein; ADP; neoplastic; cell death; cancer therapy;
 KW anti-cancer; gene therapy; cytostatic; Ad6.
 KW
 XX Mastadenovirus.
 OS
 XX
 XX Key Location/Qualifiers
 FH
 FT Peptide 1..26 /note= "fragment specifically claimed for"
 FT Peptide 41..59 /note= "fragment specifically claimed for"
 FT Peptide 63..70 /note= "fragment specifically claimed for"
 FT
 XX
 PN WO200104282-A2.
 XX
 PD 18-JAN-2001.
 PD
 XX 12-JUL-2000; 2000WO-US18971.
 PF
 XX 12-JUL-1999; 99US-0351778.
 PF
 XX

PA (UySL-) UNIV SAINT LOUIS.
 XX
 PI Wold WSM, Toch K, Doronin K, Tollefson AE;
 DR WPI; 2001-103079/11.
 XX
 PT Recombinant vector which is replication-competent in a neoplastic cell
 PT and overexpresses an adenovirus death protein, useful in cancer therapy
 PT when used together with replication-defective adenovirus which
 PT expresses an anti-cancer gene -
 XX
 PS Claim 5; Page 157; 196pp: English.
 XX
 CC The invention relates to a recombinant vector (V1) which is replication-
 CC competent in a neoplastic cell and which overexpresses an adenovirus
 CC death protein (ADP). The vector can be used in a method for promoting
 CC death of a neoplastic cell that comprises contacting the neoplastic cell
 CC with at least one V1; and a composition comprising V1 and a second
 CC recombinant virus which is: (a) replication defective and which
 CC expresses an anti-cancer gene product, where V1 complements replication
 CC of the second recombinant virus; or (b) replication-competent in a
 CC neoplastic cell. V1, together with one or more replication-defective
 CC adenovirus which expresses an anti-cancer gene product, are useful in
 CC cancer therapy. Overexpression of ADP by V1 results in faster lysis of
 CC cells and spread of the virus throughout a cell monolayer than viruses
 CC expressing wild-type levels of ADP. The present sequence represents the
 CC amino acid sequence of an ADP encoded by Ad6.
 XX
 SQ Sequence 95 AA:
 Query Match 40.2%; Score 35; DB 22; Length 95;
 Best Local Similarity 100.0%; Pred. No. 6.9e-28;
 Matches 35; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 41 MWMFSIALMFVCLIMWLICCKRRRAPPPIRPI 75
 DB 35 MWMFSIALMFVCLIMWLICCKRRRAPPPIRPI 69
 RESULT 15
 AAB61872
 ID AAB61872 standard; Protein: 84 AA.
 AC AAB61872;
 DT 08-MAY-2001 (first entry)
 XX
 DE Ad2 ADP mutant dl737.
 XX
 KW Adenovirus death protein; ADP; neoplastic; cell death; cancer therapy;
 KW anti-cancer; gene therapy; cytostatic; Ad2; mutant.
 XX
 OS Mastadenovirus.
 OS
 PN WO200104282-A2.
 PN
 PD 18-JAN-2001.
 PD
 PF 12-JUL-2000; 2000WO-US18971.
 PF
 PR 12-JUL-1999; 99US-0351778.
 PR
 PA (UySL-) UNIV SAINT LOUIS.
 PA
 PI Wold WSM, Toch K, Doronin K, Tollefson AE;
 PI
 DR WPI; 2001-103079/11.
 DR
 XX
 PT Recombinant vector which is replication-competent in a neoplastic cell
 PT and overexpresses an adenovirus death protein, useful in cancer therapy
 PT when used together with replication-defective adenovirus which
 PT expresses an anti-cancer gene -

XX
 PS Example 9; Fig 20; 196pp: English.
 XX
 CC The invention relates to a recombinant vector (V1) which is replication-
 CC competent in a neoplastic cell and which overexpresses an adenovirus
 CC death protein (ADP). The vector can be used in a method for promoting
 CC death of a neoplastic cell that comprises contacting the neoplastic cell
 CC with at least one V1; and a composition comprising V1 and a second
 CC recombinant virus which is: (a) replication defective and which
 CC expresses an anti-cancer gene product, where V1 complements replication
 CC of the second recombinant virus; or (b) replication-competent in a
 CC neoplastic cell. V1, together with one or more replication-defective
 CC adenovirus which expresses an anti-cancer gene product, are useful in
 CC cancer therapy. Overexpression of ADP by V1 results in faster lysis of
 CC cells and spread of the virus throughout a cell monolayer than viruses
 CC expressing wild-type levels of ADP. The present sequence represents the
 CC amino acid sequence of an Ad2 ADP mutant.
 XX
 SQ Sequence 84 AA:
 Query Match 34.5%; Score 30; DB 22; Length 84;
 Best Local Similarity 100.0%; Pred. No. 7.5e-23;
 Matches 30; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 46 IALMFVCLIMWLICCKRRRAPPPIRPI 75
 DB 29 IALMFVCLIMWLICCKRRRAPPPIRPI 58

Search completed: June 21, 2002, 08:23:31
 Job time: 196 sec
